#19D

SEQUENCE LISTING

(1) GENERAL INFORMATION:
(i) APPLICANT: Ravnikar et al.
(ii) TITLE OF INVENTION: Thioredoxin/Heterologous Protein Bacterial Expression System
(iii) NUMBER OF SEQUENCES: 14
(iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: Schering-Plough Corporation
(B) STREET: 2000 Galloping Hill Road
(C) CITY: Kenilworth
(D) STATE: New Jersey
(E) COUNTRY: U.S.A.
(F) ZIP : 07033-0530
(v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: diskette
(B) COMPUTER: Power Macintosh 7600/120
(C) OPERATING SYSTEM: Macintosh 7.5.3
(D) SOFTWARE: Microsoft Word 6.0
(vi) CURRENT APPLICATION DATA:
(A) APPLICATION NUMBER: US 08/846,606
(B) FILING DATE: 30-APR-1997
(vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: US 60/011,606
(B) FILING DATE: 30-APR-1996
(viii) ATTORNEY/AGENT INFORMATION:
(A) NAME: Thampoe, Immac J.
(B) REGISTRATION NUMBER: 36,322
(C) REFERENCE DOCKET NUMBER: JB0600Q

(2) INFORMATION FOR SEQ ID NO:1
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1

CCTGTGGAGT TACATATGAG CGATAAAATT 30

(2) INFORMATION FOR SEQ ID NO:2
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 47 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2

GCACCCAACA TGCAAGGATC CTTACGCCAG ATTAGCATCG AGGAACT 47

(2) INFORMATION FOR SEQ ID NO:3
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 336 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3

ATGAGCGATA AAATTATTCA CCTGACTGAC GACAGTTTTG ACACGGATGT 50
ACTCAAAGCG GACGGGGCGA TCCTCGTCGA TTTCTGGGCA GAGTGGTGCG 100
GTCCGTGCAA AATGATCGCC CCGATTCTGG ATGAAATCGC TGACGAATAT 150
CAGGGCAAAC TGACCGTTGC AAAACTGAAC ATCGATCAAA ACCCTGGCAC 200
TGCGCCGAAA TATGGCATCC GTGGTATCCC GACTCTGCTG CTGTTCAAAA 250
ACGGTGAAGT GGCGGCAACC AAAGTGGGTG CACTGTCTAA AGGTCAGTTG 300
AAAGAGTTCC TCGATGCTAA TCTGGCGTAA GGATCC 336

(2) INFORMATION FOR SEQ ID NO:4
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 336 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4

ATGAGCGATA AAATTATTCA CCTGACTGAC GACAGTTTTG ACACGGATGT 50
ACTCAAAGCG GACGGGGCGA TCCTCGTCGA TTTCTGGGCA GAGTGGTGCG 100
GTCCGTGCAA AATGATCGCC CCGATTCTGG ATGAAATCGC TGACGAATAT 150
CAGGGCAAAC TGACCGTTGC AAAACTGAAC ATCGATCAAA ACCCTGGCAC 200
TGCGCCGAAA TATGGCATCC GTGGTATCCC GACTCTGCTG CTGTTCAAAA 250
ACGGTGAAGT GGCGGCAACC AAAGTGGGTG CACTGTCTAA AGGTCAGTTG 300
AAAGAGTTCC TCGAGGCTAA TCTGGCGTAA GGATCC 336

(2) INFORMATION FOR SEQ ID NO:5
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 81 bases pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5

GATAATATTC TGGCTGGTTC TGGTTCTGGT GATGACGATG ACAAGGGTCC 50
TGTTCCGCCG TCTACCGCTC TGCGTGAGCT C 81

(2) INFORMATION FOR SEQ ID NO:6
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6

Asp Asn Asn Leu Ala Gly Ser Gly Ser Gly Asp Asp Asp Asp Lys
1 5 10 15

Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu
20 25

(2) INFORMATION FOR SEQ ID NO:7
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 52 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7

GAAGGAGGCT GATTAAATGG GTCCGGTTCC GCCGTCTACC GCTCTGGAGC 50
TC 52

(2) INFORMATION FOR SEQ ID NO:8
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8

AAGGAGGCTG ATTAAATG 18

(2) INFORMATION FOR SEQ ID NO:9
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9

AAGGAGGCTG ATTAATG 17

(2) INFORMATION FOR SEQ ID NO:10
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10

AAGGAGGTTT AATG 14

(2) INFORMATION FOR SEQ ID NO:11
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11

Leu Asp Ala Asn Leu Ala
1 5

(2) INFORMATION FOR SEQ ID NO:12
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12

CTCGATGCTA ATCTGGCGTA A 21

(2) INFORMATION FOR SEQ ID NO:13
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13

CTCGAGGCTA ATCTGGCGTA A 21

(2) INFORMATION FOR SEQ ID NO:14
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14

Leu Glu Ala Asn Leu Ala
1 5